NOVEMBER/DECEMBER 2023

CECA63A/CECS63A — BIG DATA ANALYTICS

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

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Answer ALL questions.

1. What is Big Data?

2. Write down the four computing resources of Big Data storage.

3. Compare RTAP and RTSA.

4. List out the applications of Data Streams.

5. Mention the characteristics and factors of business problem that favours Graph analytic solution.

6. List the categories of Big Data applications.

7. How are Big Data and Hadoop related to each other?

8. How can Map-Reduce computation executes?

9. Discuss the features of Hive.

10. List the components of Pig execution environment.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Describe any five characteristics of Big Data.

Or

(b) Discuss about storage considerations in Big Data.

12. (a) What is Data Stream Model? Explain the Data Stream Management System and its components in detail.

Or

(b) Discuss the concept of Decaying Window in detail.

13. (a) Generalize the list of tools related to Hadoop.

Or

(b) What are the various general requirements of Big Data applications? Explain.

14. (a) Discuss the various types of Map Reduce its Formats.

Or

(b) Explain the following roles in HDFS deployment with a diagram.

(i) High availability

(ii) Name Node federation.

15. (a) Explain HBASE architecture and its data model.

Or

(b) Write HiveQL, queries to perform the following task with example.

(i) Create table.

(ii) Divide table into related parts.

(iii) Joining tables.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. How would you show your understanding of the Tools, Trends and Technology in Big Data?

17. Taking Stock Market predictions as a case study, elaborate on the Real Time Analytics Platform (RTAP) present the assumption mode.

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18. Why Hadoop is called a Big Data technology? Explain how it supports big data.

19. What are the limitations with in the Map Reduce Model without YARN?

20. What is Zoo Keeper? Explain its features with applications.